What is claimed is:

1. A fault detection method for an engine controller for the detection of a loss of thrust control resulting in too low or too high a thrust for an intended positive or negative acceleration, respectively, comprising:

determining an error of a value relating to engine acceleration or deceleration as a first control parameter,

measuring a second control parameter (dependent on engine acceleration or deceleration,

comparing each of the two control parameters to a respective specified threshold),

determining a simultaneous transgression of the respective thresholds,

detecting the presence of engine surge,

identifying too high or too low a thrust relative to the intended positive or negative acceleration with both thresholds being transgressed simultaneously, and

eliminating disturbances caused by signal noise and engine surge.

2. A fault detection method in accordance with Claim 1, wherein a positive or negative difference (EPRerror) of a command value (EPRcmd) and an actual value (EPRactual) of an engine pressure ratio (EPR) for engine acceleration or deceleration is used as the first control parameter.

3. A fault detection method in accordance with Claim 2, wherein the second parameter is the positive or negative acceleration (N2dot) of at least one of a high-pressure shaft, an intermediate-pressure shaft and a low-pressure shaft of the engine.

4. A fault detection method in accordance with Claim 2, wherein the second parameter is a time derivative of at least one of a pressure and a pressure ratio in the engine.

5. A fault detection method in accordance with Claim 2, wherein the second parameter is a time derivative of a fuel flow.

6. A fault detection method in accordance with Claim 2, wherein the second parameter is a time derivative of a torque of an engine shaft.

7. A fault detection method in accordance with Claim 2, wherein the second parameter is a time derivative of at least one of an engine temperature and an engine temperature ratio.

8. A fault detection method in accordance with Claim 3, wherein the specified threshold of the first control parameter and the specified threshold of the second control parameter each represent a limit for the avoidance of disturbances caused by signal noise in an overthrust situation (-OEPRMN, -ON2DMN) or in an underthrust situation (+UEPRMN, +UN2DMN).

9. A fault detection method in accordance with Claim 8, wherein the threshold of the error of the engine pressure ratio is approx. +/- 0.15, respectively, and the thresh-

old of the acceleration of an engine shaft as the second control parameter is approx. +/- 0.1%/sec, respectively, with an EPRerror > 0.15 and a simultaneously established N2dot < 0.1%/sec identifying an underthrust situation for an intended acceleration and an EPRerror < -0.15 and a simultaneously established N2dot > -0.1%/sec identifying an overthrust situation for an intended deceleration.

10. A fault detection method in accordance with Claim 1, wherein a result of a simultaneous comparison of the first and the second control parameter with the respective threshold is overwritten with a "false" indication if engine surge is detected (SRGDET) in order to prevent a detection of loss of thrust control caused by engine surge being disturbed.

11. A fault detection method in accordance with Claim 1, wherein the specified threshold of the first control parameter and the specified threshold of the second control parameter each represent a limit for the avoidance of disturbances caused by signal noise in an overthrust situation (-OEPRMN, -ON2DMN) or in an underthrust situation (+UEPRMN, +UN2DMN).

12. A fault detection method in accordance with Claim 1, wherein the second parameter is the positive or negative acceleration (N2dot) of at least one of a high-pressure shaft, an intermediate-pressure shaft and a low-pressure shaft of the engine.

13. A fault detection method in accordance with Claim 1, wherein the second parameter is the time derivative at least one of a pressure and a pressure ratio in the engine.

14. A fault detection method in accordance with Claim 1, wherein the second parameter is a time derivative of a fuel flow.

15. A fault detection method in accordance with Claim 1, wherein the second parameter is a derivative of a torque of an engine shaft.

16. A fault detection method in accordance with Claim 1, wherein the second parameter is a time derivative of at least one of an engine temperature and an engine temperature ratio.